

UK Patent Application (19) GB (11) 2 102 054 A

(21) Application No 8220330

(22) Date of filing 13 Jul 1982

(30) Priority data

(31) 8122037

(32) 16 Jul 1981

(33) United Kingdom (GB)

(43) Application published
26 Jan 1983

(51) INT CL³
E01C 19/52

(52) Domestic classification
E1S 5

(56) Documents cited
GB 1520896
GB 0757194

(58) Field of search
E18
E1G

(71) Applicant
David Capell,
Brambles, Yarford,
Kingston St. Mary,
Taunton, Somerset

(72) Inventor
David Capell

(74) Agents

Hasseltine Lake and Co.,
28 Southampton
Buildings, Chancery Lane,
London, WC2A 1AT

(64) Mortar or other material flattening device

(57) A device (1) for flattening mortar or other suitable material for forming a bed for a slab comprises a body (2) that is rested on a previously-laid slab (9) so that by a brisk to and fro action

a scraper plate (4) carried by the body flattens mortar or other suitable material roughly placed to one side of the slab (9). The placed material can thus be formed into a bed having a flat surface which can be seen to be free from bumps or hollows, and which is set at a correct height for receiving the next slab to be placed. This next slab is positioned and lightly tapped down, consolidating the material, and there is no need to lift the slab again to check the condition of the bed.

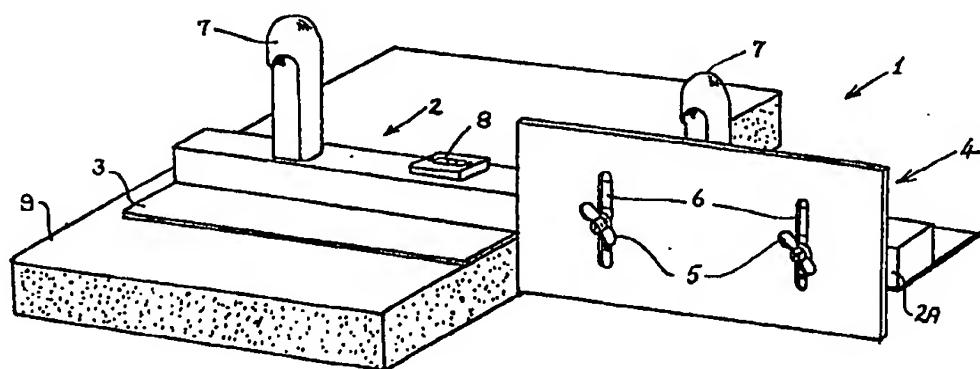


Fig. 1

GB 2 102 054 A

1/1

2102054

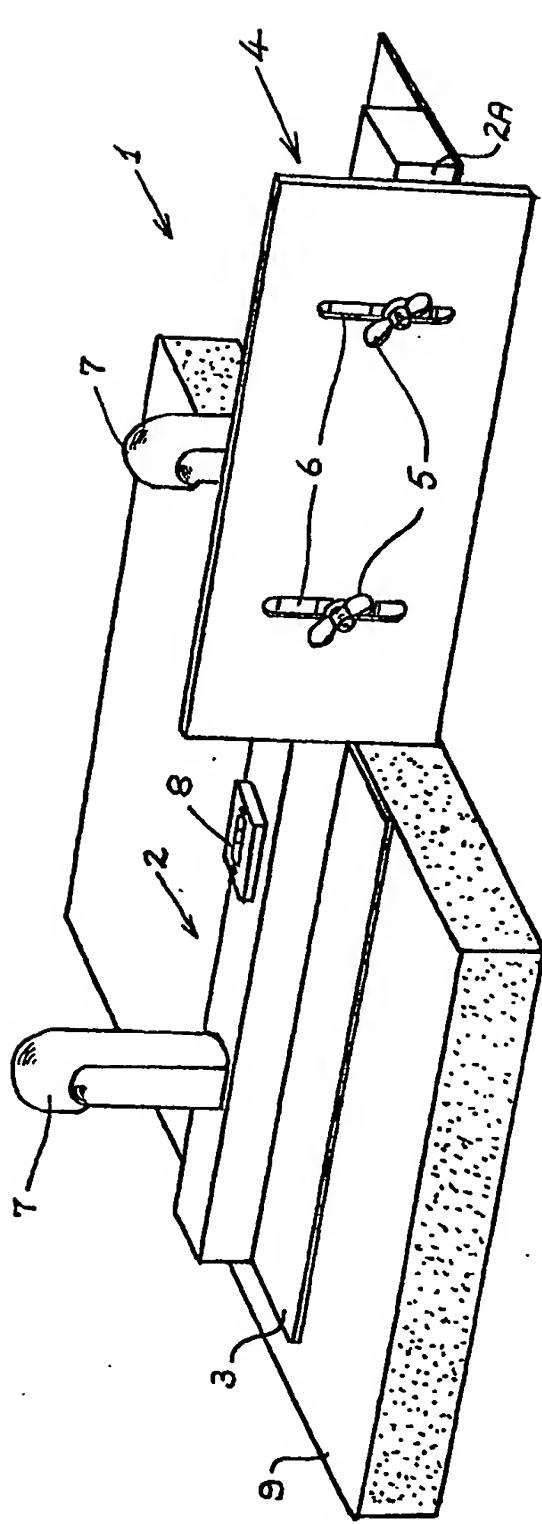


Fig. 1

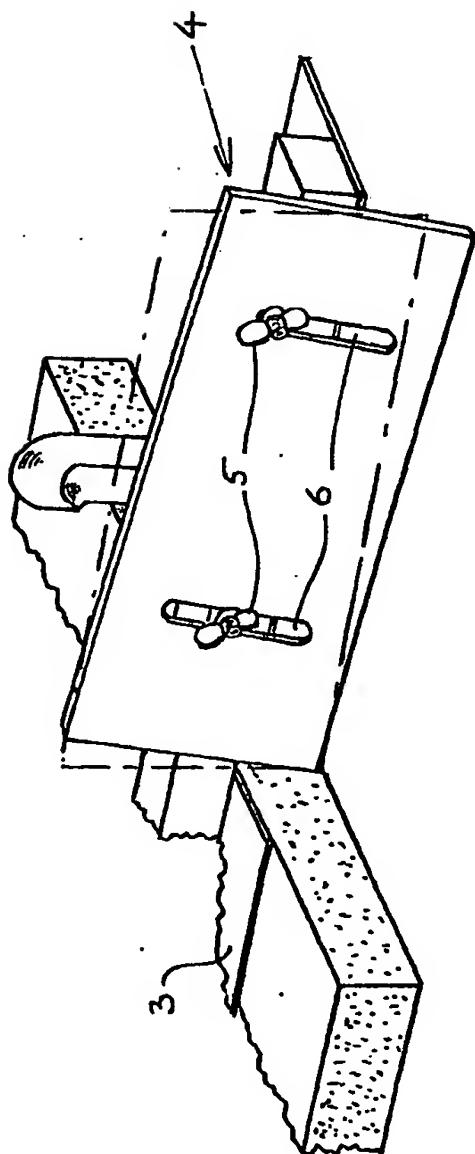


Fig. 2

SPECIFICATION

Mortar or other material flattening device

This invention relates to a device for flattening a bed of mortar or other suitable material prior to laying a slab thereupon.

The usual manner of laying slabs side-by-side on level ground is to place mortar or other material such as sand along where a slab is to be laid, roughly level the mortar or other material, position the slab, tap the slab down to flatten the bumps in the material bed and to get the slab down to the correct level relative to its neighbouring slabs, lift the slab, add more of the material to fill any hollow, re-position the slab and re-tap. In addition to being time consuming as several steps are involved, this method gives the problems that the slabs tend to crack when tapped, and the slabs, which are heavy, have each to be lifted and replaced.

According to the present invention there is provided a device for flattening material to form a bed for receiving a slab to be laid adjacent a previously-laid slab, the device comprising a body having a base to be rested on the previously-laid slab to locate with respect to that slab a scraper edge carried by the body to be at one side of the previously-laid slab, the scraper edge being thus located at a position for scraping placed material to produce a flat bed at a suitable height for receiving the slab to be laid. By utilising this device a bed of mortar or other material having a flat surface at the correct height can be produced prior to laying a slab, and there is no need to lift the slab after laying as it can be ensured that there are no bumps or hollows in the bed before the slab is laid. As the height of the bed can be set accurately, and bumps avoided, no heavy tapping of the slab after laying is required, minimising the risk of breakage. The device is of simple construction and is easy to use.

For a better understanding of the invention and to show how the same may be carried into effect, reference will now be made, by way of example, to the accompanying drawing, in which:—

Figure 1 is a perspective view of a mortar or other material flattening device shown positioned on a paving slab, and

Figure 2 is a perspective view of part of the device of Figure 1 showing a different operational position of the part illustrated.

The flattening device 1 shown in the Figures has an elongated box-sectioned body 2 that includes a flat base plate 3. Over approximately half its length the body 2 has adjustably secured to one upright face 2A an upright plate 4. The plate 4 is held in position by making fast wing nuts 5 on bolts that project from the face 2A and extend through upright slots 6 in the plate 4. The body 2 carries two spaced apart upstanding handles 7 and, on its upper face, a bubble level 8.

In use where paving slabs are to be laid over a level area the device is set-up as shown in Figure 1. That is, the plate 4 is set with its lower edge parallel to the base plate 3 at a selected distance

therefrom, say 6.5 mm less than the thickness of the slabs being laid. The actual setting chosen is dependent upon the consistency of the mortar or other material being used, and is achieved by slackening the wing nut 5 so that the fixing bolts can slide in the slots 6, and re-tightening the wing nuts 5.

After laying a first slab 9, the mortar or other material for the next slab is placed in a heap and roughly levelled with a shovel. The device is then placed on the laid first slab 9 and pushed to and fro with a brisk action so that the lower edge of the plate 4 acts as a scraper edge and levels off the placed mortar or other material. The height of the bed is set accurately by this action and it can easily be ensured that there are no bumps or hollows. Overall levelness can be checked by reference to the bubble level 8. Once the bed is placed in a satisfactory condition the next slab is laid, its weight, coupled with a light tapping, consolidating the material over the extra thickness (for example 6.5 mm) selected. No heavy tapping of the freshly laid slab is required as the level of the bed has been accurately set, and there will be no bumps requiring levelling. As there will also be no hollows, and the slab is at the correct height, there is no need to lift the slab again, and work can immediately proceed to laying the next slab.

Figure 2 illustrates how the device can be used where a slab is to be inclined with respect to its neighbour. The wing nuts 5 are slackened, the plate 4 is moved from its level area setting (chain dot lines in Figure 2) so that its lower scraper edge is at the appropriate angle to the base plate 3, and the wing nuts are re-tightened. The configuration of the slots 6 is chosen to facilitate such adjustment of the plate 4 (they are of a sufficient width in the form illustrated), and, for example, the outboard slot 6 can be inclined with respect to the inboard slot 6. The device is used as described above to give a bed that is flat, but inclined at the desired angle.

To facilitate flattening of a greater area, the body 2 can be of telescopic construction enabling the plate 4 with a part of the body carrying it to be moved away from a part of the body resting on the previously laid slab. A telescoping body can be collapsed for transport. Alternatively for transportation the body can be of two-part construction with one part being plugged into the other (via an intermediate member if desired) when the device is to be used.

CLAIMS

1. A device for flattening material to form a bed for receiving a slab to be laid adjacent a previously-laid slab, the device comprising a body having a base to be rested on the previously-laid slab to locate with respect to that slab a scraper edge carried by the body to be at one side of the previously-laid slab, the scraper edge being thus located at a position for scraping placed material to produce a flat bed at a suitable height for receiving the slab to be laid.

2. A device as claimed in claim 1, wherein the

scraper edge is adjustable relative to the body so that the height of the flat bed can be selected.

3. A device as claimed in claim 2, wherein the scraper edge can be set inclined to the base of the body so that a flat bed inclined to the upper surface of a previously-laid slab can be produced.

4. A device as claimed in claim 2 or 3, wherein the scraper edge is an edge of a plate that is secured to the body by bolts passed through slots in the plate.

5. A device as claimed in any one of claims 1 to

15 4, wherein the body comprises releasably interconnected parts, one of which has said base and the other or another of which carries the scraper edge.

6. A device as claimed in any one of claims 1 to 4, wherein the body comprises telescoping parts, one of which has said base surface, and the other or another of which carries the scraper edge.

20 7. A device for flattening material to form a bed, substantially as hereinbefore described with reference to the accompanying drawing.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1983. Published by the Patent Office
25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.